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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,404	03/31/2004	Samuel Achilefu	1515.1:H US (073979.14)	5388
27805 7590 03/27/2009 THOMPSON HINE L.L.P. Intellectual Property Group			EXAMINER	
			PERREIRA, MELISSA JEAN	
P.O. BOX 880 DAYTON, OI			ART UNIT	PAPER NUMBER
			1618	
			MAIL DATE	DELIVERY MODE
			03/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.	Applicant(s)	Applicant(s)		
10/814,404	ACHILEFU ET AL.			
Examiner	Art Unit			
MELISSA PERREIRA	1618			

		MELISSA PERREIRA	1618	
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply				
A SH WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY HEVER IS LONGER, FROM THE MAILING DA sons of time may be available under the provisions of 3° CFR 1.13 SIX (5) MCNTHS from the mailing date of this communication. period for reply is specified above, the maximum statutory period re to veryly within the soil or adsended period for reply with by statute, the communication of the soil of the state of the soil of	ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim- till apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE!	I. sely filed the mailing date of this of (35 U.S.C. § 133).	
Status				
2a)⊠	Responsive to communication(s) filed on <u>23 Ja</u> This action is FINAL . 2b) This Since this application is in condition for allowan closed in accordance with the practice under <i>E</i>	action is non-final. ace except for formal matters, pro		e merits is
Disnositi	ion of Claims			
4) Д 5) 6) Д 7)	Claim(s) 1.17.19.23 and 27-36 is/are pending in 4a) Of the above claim(s) 27-36 is/are withdraw Claim(s) is/are allowed. Claim(s) 1.17.19 and 23 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	rn from consideration.		
Applicati	ion Papers			
9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.				
Priority (ınder 35 U.S.C. § 119			
a)l	Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau see the attached detailed Office action for a list of	s have been received. s have been received in Applicati- ity documents have been received (PCT Rule 17.2(a)).	on No ed in this National	Stage
Attachmen	t(s)	4) Interview Summary		

1) 🗵	Notice of References Cited (PTO-892)
2)	Notice of Draftsperson's Patent Drawing Review (PTO-948
3)	information Disclosure Statement(s) (PTO/SB/06)

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) 1 Notice of Informal Patent Application-

U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06)

Paper No(s)/Mail Date _____.

Application/Control Number: 10/814,404 Page 2

Art Unit: 1618

DETAILED ACTION

Claims 1,17,19,23 and 27-36 are pending in the application. Claims 27-36 are withdrawn from consideration.

Response to Arguments

 Applicant's arguments with respect to claims 1,17,19 and 23 have been considered but are moot in view of the new ground(s) of rejection.

New Grounds of Rejection Necessitated by the Amendment Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 1,17,19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajagopalan et al. (US 5,672,333) in view of Huynh et al. (US 5,750,722).
- 4. Rajagopalan et al. (US 5,672,333) discloses the indole compounds below which are used in the preparation of cyanine dyes where R¹ is H, C₁₋₁₀ hydroxyalkyl, C₁₋₁₀ alkoxyl, halogen, nitro, etc.; R³ is C₁₋₁₀ aryl, C₁₋₁₀ alkoxyalkyl, etc.; W¹ is CR²R¹0 where R³ and R¹0 may be defined in the same manner as R³, such as C₁₋₁₀ aryl, C₁₋₁₀ alkoxyalkyl, etc. (abstract; column 2, lines 28-67; column 3, lines 18-43).

Art Unit: 1618

- 6. Rajagopalan et al. does not disclose that R^3 and R^9 and R^{10} , corresponding to Y_1 and R_c and R_d of the instant claims, are selected from the group consisting of C_{1-10} polyhydroxyaryl, etc.
- 7. Huynh et al. (US 5,750,722) discloses of the benz[e]indole compounds below which are used for the synthesis of Indocyanine Green where R_1 , R_2 , R_1 , R_2 , R_3 , R_4 , and R_5 are H, C_{1-12} alkyl (i.e. methyl), aryl or aroxyl groups (not excluding polyhydroxyaryl), etc.; R_6 is alkoxyl, C_{1-4} sulphoalkyl, etc. (abstract; column 1, lines 8-42).

8.

9. At the time of the invention it would have been obvious to one skilled in the art to substitute the R_3 , R_4 aroxyl groups (not excluding polyhydroxyaryl) of Huynh et al. for the R^9 and R^{10} groups for the compounds of Rajagopalan et al. as a.) there are a finite number of substituents listed for R_3 , R_4 of Huynh et al., b.) the compounds of both disclosures have equivalent core ring structures where the substituents (R_3 , R_4 of Huynh et al. and R^9 and R^{10} groups of Rajagopalan et al.) are attached at the same carbon of the core ring structure and c.) both disclosures are drawn to the same utility, such as preparation of cyanine dyes. The substitution of the R_3 , R_4 aroxyl groups (not excluding polyhydroxyaryl) of Huynh et al. for the R^9 and R^{10} groups for the compounds of

Application/Control Number: 10/814,404

Art Unit: 1618

Rajagopalan et al. would yield predictable results, such as the generation of new cvanine dves.

10. Rajagopalan et al. teaches that R^9 and R^{10} may be defined in the same manner as R^3 and therefore at the time of the invention it would also have been obvious to one skilled in the art to utilize the aroxyl groups (not excluding polyhydroxyaryl) for the R^3 group as well as the R^9 , R^{10} groups of Rajagopalan et al.

Conclusion

- 11. No claims are allowed at this time.
- Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number: 10/814,404

Art Unit: 1618

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA PERREIRA whose telephone number is (571)272-1354. The examiner can normally be reached on 9am-5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/ Supervisory Patent Examiner, Art Unit 1618

/Melissa Perreira/ Examiner, Art Unit 1618